WHAT IS CLAIMED IS:

1. A method of exposing a luminal wall of a biological vessel to a substance, comprising:

(a) inserting a rolled polymer film including the substance into a lumen of the biological vessel; and

(b) unrolling said rolled polymer film in the lumen of the biological vessel thereby exposing the luminal wall of the biological vessel to the substance.

2. The method of claim 1, wherein said rolled polymer film is rolled over a stent.

3. The method of claim 2, wherein said stent is positioned over a balloon catheter used in angioplasty.

4. The method of claim 2, wherein said inserting said rolled polymer is effected using a catheter.

5. The method of claim 3, wherein said unrolling said rolled polymer is effected using said balloon catheter used in angioplasty.

6. The method of claim 2, wherein said unrolling said rolled polymer is effected using a self-expandable stent.

7. The method of claim 1, wherein said polymer film is biodegradable.

8. The method of claim 1, wherein said substance forms a part of said polymer film.

9. The method of claim 1, wherein said substance coats said polymer film.

10. The method of claim 1, wherein said substance included in said polymer film is selected from the group consisting of PEG-alginate, alginate, PEG-fibrinogen, PEG-collagen, PEG-albumin, collagen, fibrin, and alginate-fibrin.

11. The method of claim 10, wherein a PEG constitute of said PEG-alginate is selected from the group consisting of PEG-acrylate (PEG-Ac) and PEG-vinylsulfone (PEG-VS).

12. The method of claim 11, wherein said PEG-Ac is selected from the group consisting of PEG-DA, 4-arm star PEG multi-Acrylate and 8-arm star PEG multi-Acrylate.

13. The method of claim 12, wherein said PEG-DA is a 4-kDa PEG-DA, 6-kDa PEG-DA, 10-kDa PEG-DA and/or 20-kDa PEG-DA.

14. The method of claim 12, wherein a weight ratio between said 4-kDa PEG-DA to said alginate is 0.1 gram to 1.0 gram, respectively.

15. The method of claim 10, wherein said alginate is sodium alginate.

16. The method of claim 1, wherein said substance included in said polymer film is a drug.

17. The method of claim 16, wherein said drug is selected from the group consisting of an antiproliferative drug, a growth factor, a cytokine, and an immunosuppressant drug.

18. The method of claim 17, wherein said antiproliferative drug is selected from the group consisting of rapamycin, paclitaxel, tranilast, and trapidil.

19. The method of claim 17, wherein said growth factor is selected from the group consisting of Vascular Endothelial Growth Factor (VEGF), and angiopeptin.

20. The method of claim 17, wherein said cytokine is selected from the group consisting of M-CSF, IL-1beta, IL-8, beta-thromboglobulin, EMAP-II, G-CSF, and IL-10.

21. The method of claim 17, wherein said immunosuppressant drug is selected from the group consisting of sirolimus, tacrolimus, and Cyclosporine.

22. The method of claim 1, wherein said substance is a non-thrombogenic and/or an anti-adhesive substance.

23. The method of claim 22, wherein said non-thrombogenic and/or an anti-adhesive substance is selected from the group consisting of tissue plasminogen activator, reteplase, TNK-tPA, a glycoprotein IIb/IIIa inhibitor, clopidogrel, aspirin, heparin, enoxiparin and dalteparin.

24. The method of claim 1, wherein said biological vessel is selected from the group consisting of a blood vessel, an air tract vessel, a urinary tract vessel, and a digestive tract vessel.

25. The method of claim 24, wherein said blood vessel is selected from the group consisting of an artery and a vein.

26. A method of preventing restenosis in an individual in need thereof, comprising:

(a) inserting a rolled polymer film including a substance into a lumen of a blood vessel of the individual; and

(b) unrolling said rolled polymer film in said lumen of said blood vessel thereby exposing the luminal wall of the blood vessel to said substance and preventing restenosis in the individual.

27. The method of claim 26, wherein said rolled polymer film is rolled over a stent.

28. The method of claim 27, wherein said stent is positioned over a balloon catheter used in angioplasty.

29. The method of claim 27, wherein said inserting said rolled polymer is effected using a catheter.

30. The method of claim 28, wherein said unrolling said rolled polymer is effected using said balloon catheter used in angioplasty.

31. The method of claim 27, wherein said unrolling said rolled polymer is effected using a self-expandable stent.

32. The method of claim 26, wherein said polymer film is biodegradable.

33. The method of claim 26, wherein said substance forms a part of said polymer film.

34. The method of claim 26, wherein said substance coats said polymer film.

35. The method of claim 26, wherein said substance included in said polymer film is selected from the group consisting of PEG-alginate, alginate, PEG-fibrinogen, PEG-collagen, PEG-albumin, collagen, fibrin, and alginate-fibrin.

36. The method of claim 35, wherein a PEG constitute of said PEG-alginate is selected from the group consisting of PEG-acrylate (PEG-Ac) and PEG-vinylsulfone (PEG-VS).

37. The method of claim 36, wherein said PEG-Ac is selected from the group consisting of PEG-DA, 4-arm star PEG multi-Acrylate and 8-arm star PEG multi-Acrylate.

38. The method of claim 37, wherein said PEG-DA is a 4-kDa PEG-DA,

6-kDa PEG-DA, 10-kDa PEG-DA and/or 20-kDa PEG-DA.

39. The method of claim 37, wherein a weight ratio between said 4-kDa PEG-DA to said alginate is 0.1 gram to 1.0 gram, respectively.

40. The method of claim 35, wherein said alginate is sodium alginate.

41. The method of claim 26, wherein said substance included in said polymer film is a drug.

42. The method of claim 41, wherein said drug is selected from the group consisting of an antiproliferative drug, a growth factor, a cytokine, and an immunosuppressant drug.

43. The method of claim 42, wherein said antiproliferative drug is selected from the group consisting of rapamycin, paclitaxel, tranilast, and trapidil.

44. The method of claim 42, wherein said growth factor is selected from the group consisting of Vascular Endothelial Growth Factor (VEGF), and angiopeptin.

45. The method of claim 42, wherein said cytokine is selected from the group consisting of M-CSF, IL-1beta, IL-8, beta-thromboglobulin, EMAP-II, G-CSF, and IL-10.

46. The method of claim 42, wherein said immunosuppressant drug is selected from the group consisting of sirolimus, tacrolimus, and Cyclosporine.

47. The method of claim 26, wherein said substance is a non-thrombogenic and/or an anti-adhesive substance.

48. The method of claim 47, wherein said non-thrombogenic and/or an anti-adhesive substance is selected from the group consisting of tissue plasminogen

activator, reteplase, TNK-tPA, a glycoprotein IIb/IIIa inhibitor, clopidogrel, aspirin, heparin, enoxiparin and dalteparin.

49. The method of claim 26, wherein said blood vessel is selected from the group consisting of an artery and a vein.

50. The method of claim 26, wherein said individual suffers from a disease selected from the group consisting of atherosclerosis, diabetes, heart disease, vacular disease, peripheral vascular disease, coronary heart disease, unstable angina and non-Q-wave myocardial infarction, and Q-wave myocardial infarction.

51. A method of promoting vascular re-healing in an individual in need of an angioplasty procedure, comprising:

(a) inserting a rolled polymer film including a substance capable of promoting vascular re-healing into a lumen of a blood vessel of the individual; and

(b) unrolling said rolled polymer film in said lumen of said blood vessel thereby exposing the luminal wall of the blood vessel to said substance and promoting vascular re-healing in the individual in need of the angioplasty procedure.

52. The method of claim 51, wherein said rolled polymer film is rolled over a stent.

53. The method of claim 52, wherein said stent strut is positioned over a balloon catheter used in angioplasty.

54. The method of claim 52, wherein said inserting said rolled polymer is effected using a catheter.

55. The method of claim 53, wherein said unrolling said rolled polymer is effected using said balloon catheter used in angioplasty.

56. The method of claim 52, wherein said unrolling said rolled polymer is effected using a self-expandable stent.

57. The method of claim 51, wherein said polymer film is biodegradable.

58. The method of claim 51, wherein said substance forms a part of said polymer film.

59. The method of claim 51, wherein said substance coats said polymer film.

60. The method of claim 51, wherein said substance included in said polymer film is selected from the group consisting of PEG-alginate, alginate, PEG-fibrinogen, PEG-collagen, PEG-albumin, collagen, fibrin, and alginate-fibrin.

61. The method of claim 60, wherein a PEG constitute of said PEG-alginate is selected from the group consisting of PEG-acrylate (PEG-Ac) and PEG-vinylsulfone (PEG-VS).

62. The method of claim 61, wherein said PEG-Ac is selected from the group consisting of PEG-DA, 4-arm star PEG multi-Acrylate and 8-arm star PEG multi-Acrylate.

63. The method of claim 62, wherein said PEG-DA is a 4-kDa PEG-DA, 6-kDa PEG-DA, 10-kDa PEG-DA and/or 20-kDa PEG-DA.

64. The method of claim 62, wherein a weight ratio between said 4-kDa PEG-DA to said alginate is 0.1 gram to 1 gram, respectively.

65. The method of claim 60, wherein said alginate is sodium alginate.

66. The method of claim 51, wherein said substance included in said polymer film is a drug.

67. The method of claim 66, wherein said drug is selected from the group consisting of an antiproliferative drug, a growth factor, a cytokine, and an immunosuppressant drug.

68. The method of claim 67, wherein said antiproliferative drug is selected from the group consisting of rapamycin, paclitaxel, tranilast, and trapidil.

69. The method of claim 67, wherein said growth factor is selected from the group consisting of Vascular Endothelial Growth Factor (VEGF), and angiopeptin.

70. The method of claim 67, wherein said cytokine is selected from the group consisting of M-CSF, IL-1beta, IL-8, beta-thromboglobulin, EMAP-II, G-CSF, and IL-10.

71. The method of claim 67, wherein said immunosuppressant drug is selected from the group consisting of sirolimus, tacrolimus, and Cyclosporine.

72. The method of claim 51, wherein said substance is a non-thrombogenic and/or an anti-adhesive substance.

73. The method of claim 72, wherein said non-thrombogenic and/or an anti-adhesive substance is selected from the group consisting of tissue plasminogen activator, reteplase, TNK-tPA, a glycoprotein IIb/IIIa inhibitor, clopidogrel, aspirin, heparin, enoxiparin and dalteparin.

74. The method of claim 51, wherein said blood vessel is selected from the group consisting of an artery and a vein.

75. The method of claim 51, wherein said individual suffers from a disease selected from the group consisting of atherosclerosis, diabetes, heart disease, vacular disease, peripheral vascular disease, coronary heart disease, unstable angina and non-Q-wave myocardial infarction, and Q-wave myocardial infarction.

76. A composition-of-matter comprising polyethylene glycol (PEG) attached to alginate.

77. The composition-of-matter of claim 76, wherein said PEG is selected from the group consisting of PEG-acrylate (PEG-Ac) and PEG-vinylsulfone (PEG-VS).

78. The composition-of-matter of claim 77, wherein said PEG-Ac is selected from the group consisting of PEG-DA, 4-arm star PEG multi-Acrylate and 8-arm star PEG multi-Acrylate.

79. The composition-of-matter of claim 78, wherein said PEG-DA is a 4-kDa PEG-DA, 6-kDa PEG-DA, 10-kDa PEG-DA and/or 20-kDa PEG-DA.

80. The composition-of-matter of claim 76, wherein a weight ratio between said 4-kDa PEG-DA to said alginate is 0.1 gram to 1 gram, respectively.

81. The composition-of-matter of claim 76, wherein said alginate is sodium alginate.

82. The composition-of-matter of claim 76, further comprising Calcium Chloride as a cross-linking molecule.

83. A polymer film comprising polyethylene glycol (PEG) attached to alginate.

84. The polymer film of claim 83, wherein said PEG is selected from the group consisting of PEG-acrylate (PEG-Ac) and PEG-vinylsulfone (PEG-VS).

85. The polymer film of claim 84, wherein said PEG-Ac is selected from the group consisting of PEG-DA, 4-arm star PEG multi-Acrylate and 8-arm star PEG multi-Acrylate.

86. The polymer film of claim 85, wherein said PEG-DA is a 4-kDa PEG-DA, 6-kDa PEG-DA, 10-kDa PEG-DA and/or 20-kDa PEG-DA.

87. The polymer film of claim 83, wherein a weight ratio between said 4-kDa PEG-DA to said alginate is 0.1 gram to 1 gram, respectively.

88. The polymer film of claim 83, wherein said alginate is sodium alginate.

89. The polymer film of claim 83, further comprising Calcium Chloride as a cross-linking molecule.

90. The polymer film of claim 83, further comprising at least one agent is selected from the group consisting of an antiproliferative drug, a growth factor, a cytokine, and an immunosuppressant drug.

91. The polymer film of claim 90, wherein said antiproliferative drug is selected from the group consisting of rapamycin, paclitaxel, tranilast, and trapidil.

92. The polymer film of claim 90, wherein said growth factor is selected from the group consisting of Vascular Endothelial Growth Factor (VEGF) and angiopeptin.

93. The polymer film of claim 90, wherein said cytokine is selected from the group consisting of M-CSF, IL-1beta, IL-8, beta-thromboglobulin, EMAP-II, G-CSF, and IL-10.

94. The polymer film of claim 90, wherein said immunosuppressant drug is selected from the group consisting of sirolimus, tacrolimus, and Cyclosporine.

95. The polymer film of claim 83, wherein said polymer film includes a non-thrombogenic and/or an anti-adhesive substance.

96. The polymer film of claim 95, wherein said non-thrombogenic and/or an anti-adhesive substance is selected from the group consisting of tissue plasminogen activator, reteplase, TNK-tPA, a glycoprotein IIb/IIIa inhibitor, clopidogrel, aspirin, heparin, enoxiparin and dalteparin.

97. A drug-eluting film comprising polyethylene glycol (PEG) attached to alginate and at least one drug.

98. The drug-eluting film of claim 97, wherein said PEG is selected from the group consisting of PEG-acrylate (PEG-Ac) and PEG-vinylsulfone (PEG-VS).

99. The drug-eluting film of claim 98, wherein said PEG-Ac is selected from the group consisting of PEG-DA, 4-arm star PEG multi-Acrylate and 8-arm star PEG multi-Acrylate.

100. The drug-eluting film of claim 99, wherein said PEG-DA is a 4-kDa PEG-DA, 6-kDa PEG-DA, 10-kDa PEG-DA and/or 20-kDa PEG-DA.

101. The drug-eluting film of claim 97, wherein a weight ratio between said 4-kDa PEG-DA to said alginate is 0.1 gram to 1 gram, respectively.

102. The drug-eluting film of claim 97, wherein said alginate is sodium alginate.

103. The drug-eluting film of claim 97, further comprising Calcium Chloride as a cross-linking molecule.

104. The drug-eluting film of claim 97, wherein said drug is selected from the group consisting of an antiproliferative drug, a growth factor, a cytokine, and an immunosuppressant drug.

105. The drug-eluting film of claim 104, wherein said antiproliferative drug is selected from the group consisting of rapamycin, paclitaxel, tranilast, and trapidil.

106. The drug-eluting film of claim 104, wherein said growth factor is selected from the group consisting of Vascular Endothelial Growth Factor (VEGF) and angiopeptin.

107. The drug-eluting film of claim 104, wherein said cytokine is selected from the group consisting of M-CSF, IL-1beta, IL-8, beta-thromboglobulin, EMAP-II, G-CSF, and IL-10.

108. The drug-eluting film of claim 104, wherein said immunosuppressant drug is selected from the group consisting of sirolimus, tacrolimus, and Cyclosporine.

109. The drug-eluting film of claim 97, wherein said drug-eluting film includes a non-thrombogenic and/or an anti-adhesive substance.

110. The drug-eluting film of claim 109, wherein said non-thrombogenic and/or an anti-adhesive substance is selected from the group consisting of tissue plasminogen activator, reteplase, TNK-tPA, a glycoprotein IIb/IIIa inhibitor, clopidogrel, aspirin, heparin, enoxiparin and dalteparin.

111. A method of preventing thrombosis at a luminal wall of a blood vessel, comprising:

(a) inserting a rolled polymer film into a lumen of the blood vessel; and

(b) unrolling said rolled polymer film in the lumen of the blood vessel thereby preventing thrombosis at the luminal wall of the blood vessel.

112. The method of claim 111, wherein said rolled polymer film is rolled over a stent strut.

113. The method of claim 112, wherein said stent strut is positioned over a balloon catheter used in angioplasty.

114. The method of claim 112, wherein said inserting said rolled polymer is effected using a catheter.

115. The method of claim 113, wherein said unrolling said rolled polymer is effected using said balloon catheter used in angioplasty.

116. The method of claim 112, wherein said unrolling said rolled polymer is effected using a self-expandable stent.

117. The method of claim 111, wherein said polymer film is biodegradable.

118. The method of claim 111, wherein said polymer film is incorporated or coated with a substance.

119. The method of claim 118, wherein said substance included in said polymer film is selected from the group consisting of PEG-alginate, alginate, PEG-fibrinogen, PEG-collagen, PEG-albumin, collagen, fibrin, and alginate-fibrin.

120. The method of claim 119, wherein a PEG constitute of said PEG-alginate is selected from the group consisting of PEG-acrylate (PEG-Ac) and PEG-vinylsulfone (PEG-VS).

121. The method of claim 120, wherein said PEG-Ac is selected from the group consisting of PEG-DA, 4-arm star PEG multi-Acrylate and 8-arm star PEG multi-Acrylate.

122. The method of claim 121, wherein said PEG-DA is a 4-kDa PEG-DA, 6-kDa PEG-DA, 10-kDa PEG-DA and/or 20-kDa PEG-DA.

123. The method of claim 121, wherein a weight ratio between said 4-kDa PEG-DA to said alginate is 0.1 gram to 1 gram, respectively.

124. The method of claim 119, wherein said alginate is sodium alginate.

125. The method of claim 118, wherein said substance is a drug.

126. The method of claim 125, wherein said drug is selected from the group consisting of an antiproliferative drug, a growth factor, a cytokine, and an immunosuppressant drug.

127. The method of claim 126, wherein said antiproliferative drug is selected from the group consisting of rapamycin, paclitaxel, tranilast, and trapidil.

128. The method of claim 126, wherein said growth factor is selected from the group consisting of Vascular Endothelial Growth Factor (VEGF) and angiopeptin.

129. The method of claim 126, wherein said cytokine is selected from the group consisting of M-CSF, IL-1beta, IL-8, beta-thromboglobulin, EMAP-II, G-CSF, and IL-10.

130. The method of claim 126, wherein said immunosuppressant drug is selected from the group consisting of sirolimus, tacrolimus, and Cyclosporine.

131. The method of claim 118, wherein said substance is a non-thrombogenic and/or an anti-adhesive substance.

132. The method of claim 131, wherein said non-thrombogenic and/or an anti-adhesive substance is selected from the group consisting of tissue plasminogen activator, reteplase, TNK-tPA, a glycoprotein IIb/IIIa inhibitor, clopidogrel, aspirin, heparin, enoxiparin and dalteparin.

133. The method of claim 111, wherein said blood vessel is selected from the group consisting of an artery and a vein.